Health Workforce Analysis Research: Recent Findings

				nealth workforce Analysis	Research: Recent Findings	-			
Discipline:	Current Supply: 605,000	Current Supply Ratio:	Future Demand: 988,000	Demand Determination: Future demand was	Race/Ethnicity of Current Supply:	Practice Patterns: Allied Health:	Comments: Allied health here refers to a wide range of clinical,	# of Programs in CA: N/A	# of Graduates Per Year: ³⁷ N/A
31	(Year 2010)		(Year 2030) (Researchers estimate that California's universities and community colleges will only have the capacity to train 634,000 of the needed workers, between 63 and 79 percent of the allied health workers the state will require by 2030).	and net migration) and changes in the age structure of the population through 2030 using data from the U.S. Census		Ambulatory: 49.4% Hospital: 28.7% Nursing Care: 21.9%	administrative, and support positions, from radiologic technicians and laboratory workers to nursing aides and medical secretaries. Allied health will be the fastest growing healthcare sector with a projected 63 percent increase between 2010 and 2030. By 2030 there will be between 170,000 and 375,000 jobs that must be filled either by out-of-state workers or by Californians who would be forced to leave the state to get the necessary training.		
Certified Nurse Midwives ⁶	Active Practitioners: 474 Antepartum care: 96% Intrapartum care: 85% Postpartum care: 94% Newborn/Infant care: 30% Well Woman/ GYN: 88% Family Planning care: 91% Inactive Practitioners: 121 (Year 1998).	N/A	N/A		White: Population: 52%; CNM: 86% African American: Population: 5%; CNM: 5% Asian: Population: 11%; CNM 3% Latino: Population: 30%; CNM 4% American Indian: Population: 1%; CNM 0% Other: CMN 2% (Year 1998).	either a federally designated area or in a community health center or county hospital. 95% of CNMs work hours are spent in patient	20% of CNMs who responded to the survey are inactive. Among those CNMs who are inactive, the most frequent reason for not practicing is that there is no CNM employment available in their region (41%). Other reasons noted were the unavailability of physician consultation and hospital privileges, the cost of malpractice insurance and general dissatisfaction with the profession.		N/A
Clinical Lab Scientist	1) 2,260 (Bay Area) (Year 2007) ²⁹	N/A	1) 2,904 (Bay Area) (Year 2014) ²⁹	Refer to Mental Health Counselor Demand Determination.	N/A	N/A	Refer to footnote 2.	12	54 (Year 2008) 59 (Year 2007)
Dental Assistants	1) 7,820 (San Diego County/ Orange County/ Imperial County) (Year 2006) ²⁶ 2) 14,270 (Los Angeles County) (Year 2004) ²⁷ 3) 5,630 (Central California) (Year 2006) ²⁸ 4) 8,710 (Bay Area) (Year 2007) ²⁹ 5) 2,680 (Greater Sacramento County) (Year 2004) ³⁰	N/A	Imperial County) (Year 2014) ²⁶ 2) 22,438 (Los Angeles	occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Los Angeles County: Hispanic/Latino: 44.3% White: 27.0%; Asian: 15.2%; African American: 10.9%; Multirace: 1.5%; Other Race: 1.1% (2004) Central California: White: 40.6% Asian: 10.6% Latino: 36.3% African American: 8.3% Multirace: 2.4% Pacific Islander: 1.8% (Year 2006) Greater Sacramento County: White: 49.5% Asian: 19.3% Latino: 13.8% African American: 13.0% (Year 2004)		Refer to Footnote 1.	88	988 (Year 2008) 1,133 (Year 2007)

Discipline:	Current Supply:	Current Supply Ratio:	Future Demand:	Demand Determination:	Race/Ethnicity of Current Supply:		Comments:	# of Programs in CA:	# of Graduates Per Year: ³⁷
	1) 8,800 (Los Angeles County) (Year 2004) ²⁷ 2) 2010 (Central California) (Year 2006) ²⁸ 3) 4,100 (Bay Area) (Year 2007) ²⁹ 4) 1,280 (Greater Sacramento County) (Year 2004) ³⁰	N/A	County) (Year 2014) ²⁷ 2) 2,458 (Central California) (Year 2014) ²⁸ 3) 4,793 (Bay Area) (Year 2014) ²⁹ 4) 1,710 (Greater Sacramento County) (Year	Future demand was determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Hispanic/Latino: 28.3%	N/A	Refer to Footnote 1.	23	453 (Year 2008) 463 (Year 2007)
Dentists ¹⁴	N/A	N/A	N/A	N/A	White: 56.7% African American: 2.5% Asian: 32.4% Latino: 7.1% Other Race: 1.3% (Year 2005/2006).	N/A	N/A	6	731 (Year 2008)
Dentists ¹⁴	23,000 (Year 2001)	California: 65 per 100,000 population (Year 2001). National: 58 per 100,000 population (Year 2001)	N/A	N/A	Less than 7% of professionally active dentists are Hispanic or African-American, while 40% of Californians are either Hispanic or African American.	N/A	N/A	6	615 (Year 2007)
Dentists ¹⁶	23,000 (Year 1999).	California: 68.3 per 100,000 population (Year 1999) National: 60.4 per 100,000 population (Year 1999)		Growth of the aging population, growth of the pediatric population and the geographic maldistribution of oral health providers across the state.	Asian: Population: 11%; Dentists: 19% Latino: Population: 32%; Dentists:	N/A	While shortage of dentists are not projected over the coming decade, California will have a steady need for these professionals in order to meet ongoing demands and for new graduates (including new faculty) to replace those who are leaving practice. By federal standards, 20 percent of California communities have a shortage of dentists. More troubling still are the 32 Medical Service Study Areas in the State with no dentists at all.		581 (Year 2004)
Dentists ¹⁷	N/A	California: 70 per 100,000 population. National: 59 per 100,000 population (Year 2005).	N/A	N/A	N/A	N/A	As of October 6th, 2010 there are 104 Dental Health Professional Shortage Areas (DHPSAs) in California. Designation as a DHPSA is not automatic and involves a lengthy application process; many underserved communities that meet the criteria have not received the designation.	6	583 (Year 2000)

Discipline: Dispencing Opticians	(Year 2008)	Current Supply Ratio: N/A	Future Demand: 6,700 (Year 2018)	Development Department calculates projected employment by estimating the number of new jobs that will open up in the field due to demand and growth in the field.					# of Graduates Per Year: ³⁷ N/A
EMT/ Paramedic	1) 780 (Central California) (Year 2006) ²⁸ 2) 620 (Greater Sacramento County) (Year 2004) ³⁰		1) 1,076 (Central California) (Year 2014) ²⁸ 2) 810 (Greater Sacramento County) (Year 2014) ³⁰	occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Asian: 13.3%	N/A	Refer to footnote 2.		1,816 (Year 2008) 2,284 (Year 2007)
Health Information Technology ³⁸	125,500 (Year 2006)	N/A	154,100 (Year 2016)	Future demand was determined by the California EDD Labor Market Information Division.	N/A	N/A	N/A		258 (Year 2008) 292 (Year 2007)
Aide	1) 16,440 (Los Angeles County) (Year 2004) ²⁷ 2) 6,300 (Central California) (Year 2006) ²⁸ 3) 8,700 (Bay Area) (Year 2007) ²⁹ 4) 2,990 (Greater Sacramento County) (Year 2004) ³⁰		County) (Year 2014) ²⁷	determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Los Angeles County: Hispanic/Latino: 44.3% White: 27.0%; Asian: 15.2%; African American: 10.9%; Multirace: 1.5%; Other Race: 1.1% (2004) Central California: White: 40.6% Asian: 10.6% Latino: 36.3% African American: 8.3% Multirace: 2.4% Pacific Islander: 1.8% (Year 2006) Greater Sacramento County: White: 49.5% Asian: 19.3% Latino: 13.8% African American: 13.0% (Year 2004)		Refer to footnote 2.	355	N/A
LVN ¹²	596,355 (Year: 2000)According to the Board of Vocational Nursing and Psychiatric Technicians, as of August 31st, 2010 there are 85,002 active LVN licenses, 80,337 of those are in California and 4,665 are out of state.	N/A	N/A	N/A			Practice patterns data does not equal 100% because of lack of practice pattern data.		1,386 (Year 2008) 1,402 (Year 2007) 1,186 (Year 2004)

Discipline: LVN's	Current Supply: 1) 9,320 (San Diego County/ Orange County/ Imperial County) (Year 2006) ²⁶ 2) 24,460 (Los Angeles County) (Year 2004) ²⁷ 3) 6,030 (Central California) (Year 2006) ²⁸ 4) 8,770 (Bay Area) (Year 2007) ²⁹ 5) 2,750 (Greater Sacramento County) (Year 2004) ³⁰	Current Supply Ratio: N/A	Future Demand: 1) 11,752 (San Diego County/ Orange County/ Imperial County) (Year 2014) ²⁶ 2) 30,988 (Los Angeles County) (Year 2014) ²⁷ 3) 7,510 (Central California) (Year 2014) ²⁸ 4) 10,429 (Bay Area) (Year 2014) ²⁹ 5) 3,660 (Greater Sacramento County) (Year 2014) ³⁰	Demand Determination: Future demand was determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Hispanic/Latino: 28.3%	Practice Patterns: N/A	Comments: Refer to Footnote 1.	# of Programs in CA: 203	# of Graduates Per Year: ³⁷ 1,386 (Year 2008) 1,402 (Year 2007) 1,186 (Year 2004)
Medical Assistants	1) 11,160 (San Diego County/ Orange County/ Imperial County) (Year 2006) ²⁶ 2) 24,550 (Los Angeles County) (Year 2004) ²⁷ 3) 7,910 (Central California) (Year 2006) ²⁸ 4) 9,650 (Bay Area) (Year 2007) ²⁹ 5) 3,400 (Greater Sacramento County) (Year 2004) ³⁰	N/A	1) 15,848 (San Diego County/ Orange County/ Imperial County) (Year 2014) ²⁶ 2) 33,702 (Los Angeles County) (Year 2014) ²⁷ 3) 10,838 (Central California) (Year 2014) ²⁸ 4) 11,491 (Bay Area) (Year 2014) ²⁹ 5) 4,260 (Greater Sacramento County) (Year 2014) ³⁰	jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Los Angeles County: Hispanic/Latino: 44.3% White: 27.0%; Asian: 15.2%; African American: 10.9%; Multirace: 1.5%; Other Race: 1.1% (2004) Central California: White: 40.6% Asian: 10.6%; Latino: 36.3%; African American: 8.3%; Multirace: 2.4%; Pacific Islander: 1.8% (Year 2006) Greater Sacramento County: White: 49.5%; Asian: 19.3%; Latino: 13.8%; African American: 13.0% (Year 2004)	N/A	Refer to Footnote 1.	33	3,396 (Year 2008) 3,260 (Year 2007)
Medical/ Public Health Social Worker	1) 1,690 (San Diego County/ Orange County/ Imperial County) (Year 2006) ²⁶ 2) 3,500 (Los Angeles County) (Year 2004) ²⁷ 3) 820 (Central California) (Year 2006) ²⁸ 4) 2,930 (Bay Area) (Year 2007) ²⁹ 5) 780 (Greater Sacramento County) (Year 2004) ³⁰	N/A	1) N/A (San Diego County/ Orange County/ Imperial County) (Year 2014) ²⁶ 2) 4,564 (Los Angeles County) (Year 2014) ²⁷ 3) 1,068 (Central California) (Year 2014) ²⁸ 4) 3,364 (Bay Area) (Year 2014) ²⁹ 5) 1,030 (Greater Sacramento County) (Year 2004) ³⁰	Future demand was determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	N/A	N/A	Refer to footnote 2.	N/A	N/A

Discipline:	Current Supply:	Current Supply Ratio:	Future Demand:	Demand Determination:	Race/Ethnicity of Current Supply:	Practice Patterns:	Comments:	# of Programs in CA:	# of Graduates Per Year: ³⁷
Counselor	1) 4,700 (Los Angeles County) (Year 2004) ²⁷ 2) 1,480 (Central California) (Year 2006) ²⁸ 3) 1,770 (Bay Area) (Year 2007) ²⁹ 4) 960 (Greater Sacramento County) (Year 2004) ³⁰	N/A	2) 1,944 (Central California) (Year 2014) ²⁸ 3) 2,155 (Bay Area) (Year	population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Asian: 29.3%	N/A	Refer to footnote 2.	N/A	N/A
Health/ Substance Abuse Social Worker	1) 3,810 (Los Angeles County) (Year 2004) ²⁷ 2) 1,690 (Central California) (Year 2006) ²⁸ 3) 2,810 (Bay Area) (Year 2007) ²⁹ 4) 760 (Greater Sacramento County) (Year 2004) ³⁰	N/A		Future demand was determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	N/A	N/A	Refer to footnote 2.	N/A	N/A
Health ²⁰	Psychiatrist: 6,570 (Year 2008) Mental Health and Substance Abuse Social Workers: 14,010 (Year: 2008) Licensed Clinical Social Workers: 15,559 (Year: 2008) Psychiatric Technician: 9,452 (Year: 2008) Substance Abuse and Behavioral Disorder Counselors: 8,300 (Year: 2007) Rehabilitation Counselors: 9,280 (Year: 2006)	N/A	N/A	N/A	Asian: 15%; Unlisted: 8% Hispanic/Latino: 4% Other: 3% African American: 2%	hospitals, county mental health programs, community clinics, private practice settings, criminal justice and correctional facilities.	A 2008 report found that the vacancy rate for mental health providers in California was 20-25%; these numbers are higher in rural areas. The majority of licensed mental health professionals (54.5%), either reside or practice in the Bay Area and Los Angeles region.	N/A	Substance Abuse: 869 Psychiatric Technician:4 33 (Year 2008)

	Current Supply: Active Practitioners: 3,856 Inactive Practitioners: 968 (Year 1998).	Current Supply Ratio: N/A	Future Demand: N/A	Demand Determination: N/A	Race/Ethnicity of Current Supply: White: Population: 52%; NP: 81% African American: Population: 5%; NP: 4% Asian: Population: 11%; NP: 7% Latino: Population: 30%; NP: 6% American Indian: Population: 1%; NP: 1% Other: NP: 2% (Year 1998).	Private practice: 26.4% Kaiser/HMO clinic: 14.4% ER/Urgent care center: 2.5% Inpatient hospital ward: 3.8% Hospital outpatient: 7.3% School based clinic: 5.6% Community health center: 12.7% County hospital/clinic/ department: 7.2% Nursing home: 1.7% VA/other government facility: 4.5% Other: 13.8% 80% of NPs are practicing in their field, primarily engaged in providing patient care. 74% of NPs practice in primary care fields. 39% of NPs practice in either a federally designated underserved area or in a community health center or county hospital. 93% of working hours are spent in patient care and 7% of working hours are spent in patient care and 7% of working hours are spent in urban locations. 39% practice in underserved settings.	Comments:	# of Programs in CA: 22	# of Graduates Per Year: ³⁷ N/A
Assistant/ Aide	1) 15,030 (San Diego County/ Orange County/ Imperial County) (Year 2006) ²⁶ 2) 38,320 (Los Angeles County) (Year 2004) ²⁷ 3) 11,560 (Central California) (Year 2006) ²⁸ 4) 18,430 (Bay Area) (Year 2007) ²⁹ 5) 6,080 (Greater Sacramento County) (Year 2004) ³⁰	N/A	County/ Orange County/ Imperial County) (Year 2014) ²⁶ 2) 49,352 (Los Angeles County) (Year 2014) ²⁷ 3) 14,168 (Central	the need to replace	Los Angeles County: Hispanic/Latino: 44.3% White: 27.0%; Asian: 15.2%; African American: 10.9%; Multirace: 1.5%; Other Race: 1.1% (2004) Central California: White: 40.6% Asian: 10.6% Latino: 36.3% African American: 8.3% Multirace: 2.4% Pacific Islander: 1.8% (Year 2006) Greater Sacramento County: White: 49.5% Asian: 19.3% Latino: 13.8% African American: 13.0% (Year 2004)		Refer to Footnote 1.	N/A	854 (Year 2008) 1,102 (Year 2007) 1,200 (Year 2004)
Optometry ²²	(Year 1999)	California: 11.1 Optometrists per 100,000 population (Year 1999) National: 8.7 Optometrists per 100,000 population (Year 1999)	N/A	N/A	White: Population: 48%; Optometrists: 83% African American: Population: 8%; Optometrists: Less than 4% Asian/Pacific Islander: Population: 11%; Optometrists: 10% Hispanic: Population: 30%; Optometrists: Less than 4%	N/A	While shortages of optometrists are not projected over the coming decade, California will have a steady need for these professionals in order to meet ongoing demands and for new graduates (including new faculty) to replace those who are leaving practice. Western University of Health Sciences is one of the three OD programs in California; however, it has not had a graduating class yet.	3	146 (Year 2008) 153 (Year 2007)

Discipline:	Current Supply:	Current Supply Ratio:	Future Demand:	Demand Determination:	Race/Ethnicity of Current Supply:	Practice Patterns:	Comments:	# of Programs in CA:	# of Graduates Per Year: ³⁷
	5,758 D.O.s in the state of California (Year 2010).	N/A	N/A	N/A	N/A	N/A	N/A	2	329 (Year 2009)
	3,713 D.O.s in active practice in the state of California. (Year 2007).	N/A	N/A	N/A	N/A	N/A	N/A	2	329 (Year 2009)
Osteopathic Physician (DOs) ³²	4,562 D.O.s in active practice in the state of California. (Year 2010).	N/A	N/A	N/A	N/A	N/A	N/A	2	329 (Year 2009)
	(Year 2000).	66 Pharmacists per 100,000 population in California (Year 2000).	17% increase needed by 2014 to meet demand.	Growth and aging of California's population and widening scope of pharmacy practice in clinical and research settings.	Asian: 48.5% White: 45.3% Latino: 3.3% African American: 2.4% Other race: 2.2% (2005/2006) ⁷	N/A	The special Advisory Council on Future Growth in the Health Professions (Council) recommends a nearly 100 percent increase in PharmD student enrollments by 2020, or an increase from 596 students to approximately 1164 by 2020.	8	704 (Year 2008) 707 (Year 2007)
Technicians	1) 3,940 (San Diego County/ Orange County/ Imperial County) (Year 2006) ²⁶ 2) 9,060 (Los Angeles County) (Year 2004) ²⁷ 3) 3,040 (Central California) (Year 2006) ²⁸ 4) 4,380 (Bay Area) (Year 2007) ²⁹ 5) 1,400 (Greater Sacramento County) (Year 2004) ³⁰	N/A	1) 5,100 (San Diego County/ Orange County/ Imperial County) (Year 2014) ²⁶ 2) 84,004 (Los Angeles County) (Year 2014) ²⁷ 3) 3,856 (Central California) (Year 2014) ²⁸ 4) 5,185 (Bay Area) (Year 2014) ²⁹ 5) 1,980 (Greater Sacramento County) (Year 2014) ³⁰	determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or	Los Angeles County: White: 37.2% Hispanic/Latino: 28.3% Asian: 18.6% African American: 13.7% Multirace: 1.4% Other Race: .8% Central California: White: 52.5% Asian: 13.3% Hispanic/Latino: 23.8% African American: 5.0% Multirace: 3.4% Other Race: 2.0% Greater Sacramento County: White: 62.9% Asian: 12.9% Latino: 8.0% African Americans: 11.6%		Refer to footnote 1.	27	687 (Year 2008) 630 (Year 2007) 533 (Year 2004)

Discipline: Physician Assistant Physician	Current Supply: 1) 2,100 (Los Angeles County) (Year 2004) ²⁷ 2) 670 (Central California) (Year 2006) ²⁸ 3) 1,310 (Bay Area) (Year 2007) ²⁹ 4) 410 (Greater Sacramento County) (Year 2004) ³⁰ 7,558 Active Physician Assistants	Current Supply Ratio:	Future Demand: 1) 3,228 (Los Angeles County) (Year 2014) ²⁷ 2) 982 (Central California) (Year 2014) ²⁸ 3) 1,737 (Bay Area) (Year 2014) ²⁹ 4) 560 (Greater Sacramento County) (Year 2014) ³⁰	the need to replace workers who leave their jobs for a new job or retirement.	Los Angeles County: White:49.4% Asian: 29.3%	N/A	Comments: Refer to footnote 2.	# of Programs in CA:	# of Graduates Per Year: ³⁷ 266 (Year 2008) 303 (Year 2007) 271 (Year 2004)
Assistants ³³	(Year: 2010)	IN/A	NyA	IV/A	IN/A	IN/A	IN/A	9	(Year 2008)
Physician Assistants ³⁴	6,900 (Year 2009)	N/A	N/A	N/A	N/A	Physician Assistants practice in general and family practice; emergency medicine; pediatrics; obstetrics and gynecology; surgery; orthopedics; geriatrics; women's health; occupational medicine; psychiatry and mental health; cardiology and internal medicine; oncology; and administrative and educational appointment.	N/A	9	303 (Year 2007)
Physician Assistants ⁵	Active Practitioners: 1,476 Inactive Practitioners: 103 (Year 1998).	N/A	N/A	N/A	White: Population: 52%; PA: 67% African American: Population: 5%; PA: 8% Asian: Population: 11%; PA: 7% Latino: Population: 30%; PA: 13% American Indian: Population: 1%; PA: 1% (Year 1998).	Private practice: 39.8% Kaiser/HMO clinic: 7.4% ER/Urgent care center: 13.4% Inpatient hospital ward: 4.9% Hospital outpatient: 3.8% School based clinic: 1.2% Community health center: 12.1% County hospital/clinic: 4.4% Nursing home: 0.6% VA/other government facility: 2.8% Other: 9.5% 93% of PAs are practicing in their field, primarily engaged in providing patient care. 60% of PAs practice in primary care fields. 39% of PAs practice in either a federally designated underserved area or in a community health center or county hospital. 97% of PAs work hours are in patient care while 3% of working hours are spent in non-patient care. 54% of PAs practice in urban locations. 39% of PAs practice in underserved settings.	N/A	9	271 (Year 2004)

,	Current Supply: 105,000 Practicing Physicians (Year 2002).	Current Supply Ratio: California: 265 physicians per 100,000 population (Year 2002) National: 270 per 100,000 population (Year 2002)	Future Demand: California is expected to face a shortfall of up to 17,000 physicians by 2015.	Demand Determination: Growth, aging, and increasing diversity of the California population and a rising incidence of chronic illnesses.	White: 66% African American: 3% Asian/Pacific Islander: 22%	Practice Patterns: N/A	the Health Professions (Council) recommends a 34 percent increase in MD student enrollments between the University's 2005-06 budgeted enrollments and 2020. This would be equivalent to an increase from 2564 students to 3429 by 2020.		# of Graduates Per Year: ³⁷ 1,013 (Year 2004)
	2,587 Valid California Licenses. (Year 2010).	N/A	N/A	N/A	N/A	N/A	N/A	2	35 (Year 2010)
Primary Care Physician (PCP) ²	N/A	California: 63 PCP's per 100,000 population (Year 2008) National: 79 PCP's per 100,000 population (Year 2008)	N/A	N/A	White: Population: 41%; Physicians: 53% African American: Population: 6%; Physicians: 3% Asian: Population: 12%; Physicians: 21% Latino: Population: 37%; Physicians: 5% Other: Population: 4%; Physicians: 7% Physicians With No Response: 12% (Year 2008)	Group Practice: 57% Independent Practice Associations (IPAs): 28% Foundation: 7% Community Clinic: 4% County Group: 3% UC Group: 1%	California barely meets the recommended 60-80 PCP's per 100,000 population. Also, Latino physician underrepresentation is most pronounced in the Inland Empire, Los Angeles, and San Joaquin Valley. Statewide, less than 20 percent of physicians speak Spanish. A survey of California primary care physicians found that four in five were either somewhat or very satisfied with their overall experience practicing medicine. However, two in five primary care physicians were somewhat or very dissatisfied with their medical practice incomes.	8 (MD)	1,050 (Year 2008)
	22,000 Total Practicing Physicians (Year 2008).	59 PCP's per 100,000 population (Year 2008).	N/A	N/A	Latino: Population: 33%; Physicians: 5% (Year 2008)	N/A	There are 59 primary care MD physicians in active care per 100,000 population. However, if the number of Doctors of Osteopathic Medicine (DOs) in primary care are added then California has 63 active primary care physicians per 100,000. This data means that there are 4 active primary care DOs per 100,000 people. 60 to 80 PCPs are needed in active patient care per 100,000 population. Only 16 of California's 58 counties fall within the needed supply estimate for primary care physicians, and in eight counties the supply is less than half this range. 67 percent of active patient care physicians in California reported that they were non-primary care specialists.		999 (Year 2007)

Discipline: Public Health ²¹		Current Supply Ratio: N/A	Assistant Director: 9; Supervisor Microbiologist III: 15; Supervisor Microbiologist II: 2; Supervisor I: 11 Microbiologist II: 37; Microbiologist I: 35; Clinical Scientist: 7; Laboratory Assistant: 35; Other Job Titles (Clinical Scientist, Chemist, LRN Coordinator): 14 (Year 2013)	determined through a workforce survey which revealed position vacancies due to anticipated retirement.		Practice Patterns: N/A	Comments: During the past four years, two counties in California have been forced to close their PHLs because they could not replace a director. Without a trained and prepared workforce, more county PHLs will be forced to close thus weakening the state's Laboratory Response Network. Refer to footnote 2.	# of Programs in CA: 4	# of Graduates Per Year: ³⁷ 935 (Year 2008) 852 (Year 2007)
Technologist	1) 2,060 (Central California) (Year 2006) ²⁸ 2) 850 (Greater Sacramento County) (Year 2004) ³⁰		2) 1,350 (Greater Sacramento County) (Year 2014) ³⁰	determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Asian: 13.3% Hispanic/Latino: 23.8% African American: 5.0% Multirace: 3.4% Other Race: 2.0% Greater Sacramento County: White: 62.9% Asian: 12.9% Latino: 8.0% African Americans: 11.6%				(Year 2008) 702 (Year 2007)
Technologist 23	(Year 2007)	California: 41.9 per 100,000 population (Year 2007) National: 66.9 per 100,000 population (Year 2007)		Demand is determined by population demographics (including total numbers and trends in aging, illness acuity levels, and shifting disease and condition burdens); practice standards; technological developments; clinical guidelines; professional evolution; reimbursement and insurance policies; and care delivery setting administration choices.		N/A	N/A	35	739 (Year 2008) 702 (Year 2007)
Registered Dental Hygienists ¹⁸	15,430 (Year 2003).	N/A	N/A		15% of Registered Dental Hygienists are either African-American or Hispanic.	N/A		23	453 (Year 2008)

76 * * * *	Committee of California, there are 17,814 Registered Dental Hygienists (RDH) with Active California licenses; there are 31 Registered Dental Hygienists in Extended Functions (RDHEF) with Active Licenses; and 297 Registered Dental Hygienist in Alternative Practices (RDHAP) with Active Licenses as of September 16, 2010.	population (Year 2005) <u>National:</u> 51 RDHs per 100,000 population (Year 2005)		Demand Determination: N/A	Hispanic: 7.4% Black: 1% Hawaiian: 1.5% Native American: .8% Multi/Other: 4%	Practice Patterns: Private Dental Office: 97.8% Public and Community Sites: 2.2%	Comments: N/A	# of Programs in CA: 23	# of Graduates Per Year: ³⁷ 453 (Year 2008)
Respiratory Therapist ²³	(Year 2007)	California: 31.6 per 100,000 population (Year 2007) National: 33.8 per 100,000 population (Year 2007)	(Year 2014)	California's ratio of employed respiratory therapists to general population continued to trail the U.S. This is despite the fact that salaries are good (California's mean hourly wage was almost \$30 in 2007) and salaries in California have historically been higher than the national average. 50% of educators in California expected their programs' enrollment to increase by an average of 24%.	N/A	N/A	To avoid severe workforce shortages and oversupplied professions, several elements will play important roles. These include ensuring the availability of good market and student enrollment data, school administrators who can see the big picture as well as focus attention on each program's needs, regulations and standards that are neither too stringent nor too flexible, and knowledgeable program directors with leadership skills.	:	696 (Year 2008) 698 (Year 2007)
Therapist	1) 1,760 (Central California) (Year 2006) ²⁸ 2) 1,620 (Bay Area) (Year 2007) ²⁹ 3) 570 (Greater Sacramento County) (Year 2004) ³⁰	N/A	(Year 2014) ²⁸ 2) 2,257 (Bay Area) (Year 2014) ²⁹ 3) 880 (Greater Sacramento County) (Year 2014) ³⁰	Future demand was determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	Central California: White: 64.6% Asian: 19.5% Latino: 11.6% African American: 2.4% Multirace: 1.4% Pacific Islander: .5% Greater Sacramento County: White: 67.1% Asian: 20.8% Latino: 4.6% African American: 4.8%		Refer to footnote 2.	33	696 (Year 2008) 698 (Year 2007)
RN ¹⁰		California: 638 per 100,000 population (Year 2008) National: 825 per 100,000 population (Year 2008)	N/A	N/A	White: 58.6% Asian: 26.5% Latino: 7.5% African American: 4.1% Native American: 0.4% Mixed Race: 2.0% Other: 0.9% 35 (Year 2008)	N/A	On Average, there are 854 RNs per 100,000 persons in the U.S., while California only has 638 per 100,000.	149	10,272 (Year 2007)

Discipline:	Current Supply: 293,493	Current Supply Ratio: California: 542	Future Demand: Need 116,600 more nurses	Demand Determination: Overall population growth	Race/Ethnicity of Current Supply:	Practice Patterns:	Comments: In California in 2005, 60 percent of qualified	# of Programs in CA:	# of Graduates Per Year: ³⁷ 7,704
RIN	(Year 2000).	Nurses per 100,000 population (Year 2000) National: 780 per 100,000 population (Year 2008)	by 2020.	and increased proportion of persons over age 65, many with chronic illnesses and new nurse staffing ratios for California hospitals			students were turned away because of lack of educational slots due in great part to lack of faculty. While California had 542 nurses per 100,000 population, the U.S. average was 780 per 100,000 population.	113	(Year 2004)
RN ⁹	(Year 2009).	California: 653 per 100,000 population (Year 2009) National: 825 per 100,000 population (Year 2009)	292,424 to 360,926 (Year 2030).	Future demand is based on RNs per capita, current hospital utilization of RNs and hospital staffing of RNs per patient day.	N/A	N/A	Future demand (OSHPD Data) is low compared to EDD data since they do not account for additional demand represented by vacant positions and jobs temporarily filled by registry or traveling nurses.	149	11,230 (Year 2008)
Substance Abuse/ Behavioral Disorder Counselor	1) 3,690 (Los Angeles County) (Year 2004) ²⁷ 2) 690 (Central California) (Year 2006) ²⁸ 3) 1,810 (Bay Area) (Year 2007) ²⁹ 4) 270 (Greater Sacramento County) (Year 2004) ³⁰	N/A	2) 986 (Central California) (Year 2014) ²⁸ 3) 2,328 (Bay Area) (Year 2014) ²⁹	Future demand was determined through 1) occupational growth (new jobs), driven largely by population growth and 2) the need to replace workers who leave their jobs for a new job or retirement.	N/A	N/A	Refer to footnote 2.	N/A	N/A

				_	1			Ī	
								# of	# of
		Current Supply						Programs	Graduates
Discipline:	Current Supply:	Ratio:	Future Demand:	Demand Determination:	Race/Ethnicity of Current Supply:	Practice Patterns:	Comments:	in CA:	Per Year: ³⁷

Footnotes:

References:

5Davis, Gray et al. "Nurse Practitioners, Physician Assistants and Certified Nurse Midwives in California." Office of Statewide Health Planning and Development and the Center for California Health Workforce Studies at the University of California, San Francisco. 2000. Print.

¹1) Educational opportunities in Imperial County are limited. There are only three institutions of higher education, and they offer few health professions education programs. 2)Many in this profession are the primary contact in the health care system for poor, underserved and special needs communities. 3) Required entry-level skills and certain proficiency requirements present challenges in some parts of the Central California Region where English proficiency and other skills may be lacking. 4) A single year of education in a private, for-profit institution can cost in excess of \$20,000 per year, compared with the roughly \$1,200 per year it costs to attend a California community college. Strategies to develop the region's allied healthcare workforce should address this issue. 5) Alpine, Colusa, Sierra, and Trinity Counties have no allied health educational training programs at all. In six other counties of the Northern California Region, Nursing Assistant/Aide and Home Health Aide are the only allied health training programs available.

²1) Many in this profession are the primary contact in the health care system for poor, underserved and special needs communities. 2) Required entry-level skills and certain proficiency requirements present challenges in some parts of the Central California Region where English proficiency and other skills may be lacking. 3) A single year of education in a private, for-profit institution can cost in excess of \$20,000 per year, compared with the roughly \$1,200 per year it costs to attend a California community college. Strategies to develop the region's allied healthcare workforce should address this issue. 4) Alpine, Colusa, Sierra, and Trinity Counties have no allied health educational training programs at all. In six other counties of the Northern California Region, Nursing Assistant/Aide and Home Health Aide are the only allied health training programs available.

¹Donald J. Krpan, D.O. Executive Director of the Department of consumer affairs Osteopathic Medical Board of California.

² Paxton, Craig PhD. "California Physicians Facts and Figures." California Health Care Almanac . Jul. 2010. Print.

³ Grumbach, Kevin M.D. et al. "Fewer and More Specialized: A New Assessment of Physician Supply in California." California Health Care Foundation . Jun. 2009. Print.

⁴ "A Compelling Case for Growth." Advisory Council on Future Growth in the Health Professions . Jan. 2007. Print.

⁶ Bates, Timothy and Susan Chapman. "Diversity in California's Health Professions: Pharmacy." Center for the Health Professions at the University of California, San Francisco. Aug. 2008. Print.

⁷ "A Compelling Case for Growth." Advisory Council on Future Growth in the Health Professions . Jan. 2007. Print.

⁸ Spetz, Joanne PhD. "Forecasts of the Registered Nurse Workforce in California." California Board of Registered Nursing . 29 Sep. 2009. Print.

⁹ "The Registered Nurse Population: Initial Findings from the 2008 National Sample Survey of Registered Nurses." U.S. Department of Health and Human Services, Health Resources and Services Administration. Mar. 2010. Print.

¹⁰ "A Compelling Case for Growth." Advisory Council on Future Growth in the Health Professions . Jan. 2007. Print.

¹¹ Spetz, Joanne Ph.D. et al. "Supply, Demand, and Use of Licensed Practical Nurses." Center for the Health Professions at the University of California, San Francisco. Jun. 2005. Print.

Davis, Gray et al. "Nurse Practitioners, Physician Assistants and Certified Nurse Midwives in California." Office of Statewide Health Planning and Development and the Center for California Health Workforce Studies at the University of California, San Francisco. 2000. Print.

¹³ Bates, Timothy and Susan Chapman. "Diversity in California's Health Professions: Dentistry." Center for the Health Professions at the University of California, San Francisco. Jul. 2008. Print.

¹⁴ "Evaluating Programs to Recruit Minorities into the Health Professions: Report of Two Evaluation Studies." Center for California Health Workforce Studies, Department of Family and Community Medicine, University of California, San Francisco. Apr. 2009. Print.

¹⁵ "A Compelling Case for Growth." Advisory Council on Future Growth in the Health Professions . Jan. 2007. Print.

¹⁶ Mertz, Elizabeth and Tim Bates. "Registered Dental Hygienists in California Regional Labor Market Chart Book (2005-2006). Health Workforce Tracking Collaborative. Nov. 2008. Print.

¹⁷ Mertz, Elizabeth et al. "Evaluation of Strategies to Recruit Oral Health Care Providers To Underserved Areas of California." Center for California Health Workforce Studies University of California, San Francisco. Jul. 2004. Print.

¹⁸ Mertz, Elizabeth and Tim Bates. "Registered Dental Hygienists in California Regional Labor Market Chart Book (2005-2006). Health Workforce Tracking Collaborative. Nov. 2008. Print.

¹⁹ Lok, Vincent and Susan Chapman. "The Mental Health Workforce in California: Trends in Employment, Education, and Diversity." Center for the Health Professions at the University of California, San Francisco. Mar. 2009. Print.

²⁰ California Department of Public Health

²¹ "A Compelling Case for Growth." Advisory Council on Future Growth in the Health Professions . Jan. 2007. Print.

²² Lok, Vincent and Catherine Dower. "Respiratory Care and Imaging Technology in California: Education's Response to Workforce Shortages." Center for the Health Professions at the University of California, San Francisco. 2008. Print.

²³ "Evaluating Programs to Recruit Minorities into the Health Professions: Report of Two Evaluation Studies." Center for California Health Workforce Studies, Department of Family and Community Medicine, University of California, San Francisco. Apr. 2009. Print.

²⁴ "Diversifying California's Healthcare Workforce, an Opportunity to Address California's Health Workforce Shortages." *The Office of Statewide Health Planning and Development* May. 2008 Print.

²⁵ Bates, Timothy and Susan Chapman. "Allied Health Regional Workforce Analysis San Diego Region." Center for the Health Profession at the University of California, San Francisco. Jun. 2008. Print.

²⁶ Bates, Timothy and Susan Chapman. "Allied Health Regional Workforce Analysis Los Angeles Region." Center for the Health Profession at the University of California, San Francisco. May. 2008. Print.

²⁷ Bates, Timothy et al. "Allied Health Regional Workforce Analysis Central California." Center for the Health Profession at the University of California, San Francisco . Jan. 2009. Print.

²⁸ Bates, Timothy et al. "Allied Health Regional Workforce Analysis Bay Area Region." Center for the Health Profession at the University of California, San Francisco. Jun. 2009. Print.

²⁹ Bates, Timothy et al. "Allied Health Regional Workforce Analysis Sacramento/Northern California Region." Center for the Health Profession at the University of California, San Francisco. Nov. 2009. Print.

³⁰ "Help Wanted: Will Californians Miss out on a Billion-Dollar Growth Industry." *The California Wellness Foundation*. 2010. Print.

³¹American Osteopathic Association. http://www.osteopathic.org/index.cfm?PageID=mc_conv07sdfacts

³² 2010 Osteopathic Medical Profession report. http://www.do-online.org/pdf/aoa_2010_OMP_REPORT.pdf

³³ Physician Assistant Committee. Mar. 2010. http://www.pac.ca.gov/licensees/license_033110.pdf

³⁴ "The Physician Assistant." California Academy of Physician Assistants. 14th ed. 2009. http://www.capanet.org/pdfs/PABooklet_09_Final_lores.pdf

³⁵Spetz, Joanne PhD. Et al. California Board of Registered Nursing 2008. Survey of Registered Nurses. Jun. 2009. Print.

³⁶California Department of Consumer Affairs. Medical Board of California. Board of Podiatric Medicine. http://www.bpm.ca.gov/meetings/10152010ex_h_k.pdf

³⁷California Postsecondary Education Commission.

³⁸eHealth Workforce Development Workgroup Report: Stakeholder Recommendations for California's HIE Strategic Plan August 2009. Print.